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a sound activated audio responsive unit activated by audio signals to begin processing the audio data.

A2 20. (Amended) The [audio communication system] computer station of Claim 17, wherein the computer is a network computer and has a network interface, said controller further in communication with the network interface and configured to provide the audio signals in audio data packets for transmission over the computer network, and further configured to accept audio data packets from said network and to transfer said audio data packets to said audio output unit.

REMARKS

The foregoing amendments to the claims are responsive to the Office Action mailed on December 14, 1993.

The Examiner has indicated that the drawings filed on June 15, 1992, have not been approved by the draftsman. Formal drawings will be submitted after a Notice of Allowance has been received in connection with the present application.

The Rejections Under 35 U.S.C. § 112

Claims 1-20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. More specifically, the Examiner asserts that the "substantially interfering" feature of Claims 1, 8, and 17 is not explained in the description or the claims to allow those in the art to definitely conclude its meaning.

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In view of the above-described amendments, Applicant respectfully requests that the Examiner withdraw the rejection of Claims 1-20 under 35 U.S.C. § 112, second paragraph.

The Rejections Under 35 U.S.C. § 102(b)

Claims 2-14 and 17-20 stand rejected under 35 U.S.C. § 102(b), the Examiner having taken the position that the claims are unpatentable over an article entitled "An Experimental Environment for Voice System Development," written by Swinehart, Terry, and Zellweger ("Swinehart reference"). Because Claims 2-7 depend from Claim 1 and the Examiner has rejected Claims 2-7 over the Swinehart reference, the Applicant assumes that the rejection was also intended for Claim 1.

The Examiner has asserted that the Swinehart reference discloses a communication system using a computer network. The Examiner further asserts that in Figure 1 there is an audio responsive input ("microphone"), an audio output ("speakers"), and a controller coupled to the input and output. The Examiner also asserts that the description of the "etherphones" includes a microcomputer and controller. The Examiner further asserts that with a careful reading of the Swinehart publication, and in particular the window interface in Figure 2, it appears that software is not substantially interfered with when the communication is being performed.

Applicant respectfully submits that the Office Action is not complete with respect to the asserted anticipation of Claims 1-14

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Claims 1, 8, 12, and 17 have been amended for clarification. The language relating to the substantially interfering feature (or significantly interfering in Claim 12) has been replaced.

In amended Claim 1, the controller manages the operations of the audio communication system while other application programs are actively executing in the controller. Applicant respectfully submits that amended Claim 1 satisfies the requirements of 35 U.S.C. § 112, second paragraph.

In amended Claim 8, the main control block is configured to operate while other systems are actively executing on the network computer station. Applicant respectfully submits that amended Claim 8 satisfies 35 U.S.C. § 112, second paragraph.

In amended Claim 12, each control block operates concurrently, and operates while application programs not associated with the communication system are actively executing in the network computer station.

In amended Claim 17, the controller manages the operations of the audio communication system while other application programs are actively executing on the computer station. Claim 17 has also been amended to replace the word "to" with the word "with" in two locations, to further clarify the meaning of amended Claim 17. Applicant respectfully submits that amended Claim 17 satisfies 35 U.S.C. § 112, second paragraph.

The remaining rejections were minor and have been corrected.

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and 17-20 by the Swinehart reference, as required by 37 C.F.R. § 1.105. Applicant submits that the Examiner has not explained how a person of skill in the art would interpret the Swinehart reference to disclose each of the limitations of the claimed invention of Claims 1-14 and 17-20. As a result, Applicant respectfully submits that the Examiner has not made a prima facie showing that Claims 1-14 and 17-20 are unpatentable over the Swinehart reference. Nonetheless, in an attempt to advance prosecution, the Applicant herein describes one or more distinctions for each of Claims 1-14 and 17-20 that Applicant believes renders Claims 1-14 and 17-20 patentable over the prior art. Each of Claims 1-14 and 17-20 may also have additional limitations that distinguish the claimed invention over the prior art.

The Swinehart reference discloses a workstation and an etherphone as separate units of a computer network. (See Figure 1). Each unit must have a separate network interface, each unit must manage network conflicts individually, and communications between a workstation and an etherphone take place over the network bus. Claim 1 has been amended to be more clearly limited to a computer station of a computer network, where the computer station comprises an audio communication system. Thus, in amended Claim 1, the computer station and the audio communication system are not separate units on the computer network. Implementing the audio communication system within the computer station provides several

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advantages. For example, the hardware required to implement the system is reduced, and more efficient control of the audio hardware in the audio communication system by the computer station is provided.

Claim 1 has also been amended to move the limitations related to a network interface, a microphone, and a speaker into the body of the claim. Applicant respectfully submits that amended Claim 1 is patentably distinguished over the Swinehart reference, and Applicant respectfully requests allowance of amended Claim 1.

Amended Claims 2-7 depend from amended Claim 1 and further define the invention defined in amended Claim 1. Because Claim 1 has been amended to claim a computer station, instead of an audio communication system, Claims 2-7 have also been amended to claim a computer station. In view of the patentability of amended Claim 1, Applicant respectfully submits that amended Claims 2-7 are also patentably distinguished over the Swinehart reference, and Applicant respectfully requests allowance of amended Claims 2-7.

Claim 8 has been amended so that a network computer station on a computer network comprises an audio communication system. Again, Swinehart does not disclose a workstation comprising an etherphone. Claim 8 has also been amended to move the limitations related to an audio output unit and an audio input unit into the body of the claim. Applicant respectfully submits that amended Claim 8 is patentably distinguished over the Swinehart reference, and Applicant respectfully requests allowance of amended Claim 8.

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Amended Claims 9-14 depend from amended Claim 8 and further define the invention defined in amended Claim 8. Because Claim 8 has been amended to claim a computer station, instead of an audio communication system, Claims 9-14 have also been amended to claim a computer station. In view of the patentability of amended Claim 8, Applicant respectfully submits that amended Claims 9-14 are also patentably distinguished over the Swinehart reference, and Applicant respectfully requests allowance of amended Claims 9-14.

Claim 17 has been amended so that a computer station comprises an audio communication system. Again, the Swinehart reference does not disclose a workstation comprising an etherphone. Claim 17 has also been amended to move the limitations related to a microphone and a speaker into the body of the claim. Applicant respectfully submits that amended Claim 17 is patentably distinguished over the Swinehart reference, and Applicant respectfully requests allowance of amended Claim 17.

Amended Claims 18-20 depend from amended Claim 17 and further define the invention defined in amended Claim 17. Because Claim 17 has been amended to claim a computer station, instead of an audio communication system, Claims 18-20 have also been amended to claim a computer station. In view of the patentability of amended Claim 17, Applicant respectfully submits that amended Claims 18-20 are also patentably distinguished over the Swinehart reference, and Applicant respectfully requests allowance of amended Claims 18-20.

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The Rejections Under 35 U.S.C. § 103

Claims 15 and 16 stand rejected under 35 U.S.C. § 103, the Examiner having taken the position that the claims are unpatentable over the Swinehart reference in view of the disclosure at pages 292-295 of a book entitled Computer Networks, written by A. Tanenbaum, published in 1981 ("Tanenbaum reference"). The Examiner asserts that the Swinehart reference discloses the invention substantially as claimed. The Examiner further asserts that at page 294, in describing the Metcalf, et al. (1976) algorithm for collision arbitration, the Tanenbaum reference discloses increasing a "randomization interval." The Examiner further asserts that the randomization interval is the same as the "arbitration value" found in Claim 15. The Examiner further asserts that Figures 2 and 3 of the Tanenbaum reference disclose the transmission of contention slots with the data.

As the Examiner is likely already aware, the "randomization interval" of the Tanenbaum reference is an interval of time. In addition, the "contention slots" of the Tanenbaum reference also refer to time slots. Applicant respectfully submits that a person of ordinary skill in the art would interpret the Tanenbaum reference to indicate that, after a data packet is successfully transmitted, all stations may compete for transmitting a packet at the next time slot. (See page 294). As there may be a collision during this time slot, the time slot is referred to as a "contention slot." Thus, a contention slot represents a time at

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which one or more stations may attempt to transmit a data packet. The Tanenbaum reference also indicates that, if there is a collision, all colliding stations set a local parameter, L, to 2 and choose one of the next L slots for retransmission. (See page 294). Applicant respectfully submits that a person of ordinary skill in the art would interpret the Tanenbaum reference to disclose a randomization interval that represents the elapsed time between the detection of a collision by a particular colliding station and the time of retransmission for the same colliding station.

Claim 15 has been amended to more clearly specify that a random arbitration value is a data value, as opposed to a time value. Applicant respectfully submits that it would not have been obvious to one of ordinary skill in the art to replace the randomization (time) interval of the Tanenbaum reference with the random arbitration data value of amended Claim 15. Applicant respectfully submits that amended Claim 15 is patentably distinguished over the Swinehart reference and the Tanenbaum reference, and Applicant respectfully requests allowance of amended Claim 15.

Claim 16 depends from amended Claim 15 and further defines the invention defined in amended Claim 15. In view of the patentability of amended Claim 15, Applicant respectfully submits that Claim 16 is also patentably distinguished over the Swinehart

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reference and the Tanenbaum reference, and Applicant respectfully requests allowance of Claim 16.

Summary

In summary, Applicant has amended Claims 1, 3, 8, 15, and 17 in response to the Examiner's rejections of Claims 1, 3, 8, 15, and 17 under 35 U.S.C. § 112, second paragraph; Applicant has amended Claims 1-14 and 17-20 in response to the Examiner's rejections of Claims 1-14 and 17-20 under 35 U.S.C. § 102(b); and Applicant has amended Claim 15 in response to the Examiner's rejection of Claims 15 and 16 under 35 U.S.C. § 103. Applicant respectfully requests a reconsideration of the rejections in view of the amendments and the foregoing remarks. Applicant respectfully submits that Claims 1-20, as amended herein, are in condition for allowance, and Applicant respectfully requests allowance of same.

Respectfully submitted,

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